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MINERALOGICAL ABSTRACTS

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ABBREVIATIONS AND SYMBOLS

M.M. . . Mineralogical Magazine : M.A. . . Mineralogical Abstracts : A.M. . . American Mineralogist

CHEMICAL & PHYSICAL

CHEMICAL

atomic absorption spectroscopy	..	AAS
cation-exchange capacity	..	c.e.c.
chemical analysis	..	chem. anal.
concentrated	..	conc.
differential thermal analysis	..	DTA
dilute	..	dil.
disintegrations per minute	..	d.p.m.
equivalent U_3O_8	..	eU_3O_8
ethylenediaminetetra-acetic acid	..	EDTA
heat of formation (absolute temperature subscript)	..	ΔH_t
hydrogen ion conc. acidity	..	pH
insoluble residue	..	insol. res
isotopes, e.g.	..	$^{40}Ar, ^{40}K$
loss on ignition	..	ign. loss
milliequivalent	..	me.
microgramme	..	μg
million-years	..	m.y.
neutron activation analysis	..	NAA
not determined	..	n.d.
not found	..	nt. fd.
not present	..	nil
parts per million	..	p.p.m.
rare earths	..	TR or RE
standard mean ocean water	..	SMOW
strength of solution, normal	..	N
— — — molar	..	M
substances in ionic state	..	
anions, e.g.	..	Cl^-, SO_4^{2-}
cations, e.g.	..	K^+, Fe^{3+}
thermogravimetric analysis	..	TGA
trace	..	tr.
X-ray fluorescence analysis	..	XRF

CRYSTALLOGRAPHIC &

STRUCTURAL

Ångstrom unit (10^{-8} cm)	..	Å
crystal axes	..	a, b, c
— face indices	..	(hkl)
— form indices	..	{hkl}
— zone indices	..	[hkl]
indices of X ray diffractions	..	hkl
intensity	..	I
— relative	..	I/I_0
interplanar spacing	..	d
mica structural polymorphs	..	$1M_1, 2M_1$
Siegbahn units	..	kX
space group. These words are written in full	..	
unit cell, formula units	..	Z
— — — repeat distances	..	a, b, c
— — — reciprocal lattice lengths of edges	..	a^*, b^*, c^*
— — — interaxial angles direct lattice	..	$\alpha^*, \beta^*, \gamma^*$

OPTICAL

dispersion, e.g.	..	$r > v$
electron microscopy	..	EM
extinction angle, e.g.	..	$\gamma: c$
infrared	..	IR
optic axial angle	..	2V
— — plane	..	O.A.P.
refractive index, in text	..	refr. ind.
— — of isotropic mineral	..	n
refractive indices		
of uniaxial mineral	..	ω, ϵ
of biaxial mineral	..	α, β, γ
scanning electron microscopy	..	SEM
sign of biaxiality		
negative	..	$2V_a$ or —
positive	..	$2V_v$ or +
ultraviolet	..	UV

PHYSICAL

calculated	..	calc.
calorie	..	cal.
calorie, large	..	kcal.
cycles per second	..	c/s
degree centigrade	..	$^{\circ}C$
density	..	D (quote units)
—, relative, e.g.	..	D_4^{20}
electron paramagnetic resonance	..	e.p.r.
gramme	..	g
hardness	..	H.
melting-point	..	m.p.
micron (10^{-4} cm)	..	μ
millimicron (10^{-7} cm)	..	m μ
nanometre (10^{-7} cm)	..	nm
natural remanent magnetization	..	n.r.m.
pounds per square inch	..	lb/in. ²
pressure	..	P
soluble	..	sol.
specific gravity, terms of reference		
not known	..	sp. gr.
temperature	..	T
Vickers hardness number	..	VHN
wavelength	..	λ

SYMBOLS

approximately equal to	..	\sim
equal to	..	=
equal to or greater than	..	\geq
equal to or less than	..	\leq
greater than	..	>
less than	..	<
not equal to	..	\neq
parallel to	..	\parallel
per cent	..	%
per mille	..	‰
perpendicular to	..	\perp
proportional to	..	\propto

ABBREVIATIONS USED IN REFERENCE TO PUBLICATIONS

Abhdl.	Abhandlungen	Geophys., geofis.	Geophysical-al, -s, &c.	Prosp.	Prospecting
Abstr.	Abstract, -s	Govt.	Government	Publ.	Publication(s), published
Abt.	Abteilung				
Acad., Accad., Akad.	Academy, & <i>equiv.</i>	Hdbh.	Handbuch	Razv.	Razvedka = survey
Adv.	Advancement			Rec.	Record(s)
Agric.	Agricultur-al, -e	Illustr.	Illustrat-ed, -ions	Ref.	References, referata
Anal.	Analy-st, -tical, &c.	Imp.	Imperial	Rend.	Rendiconti
Ann., An.	Annals, Analess, & <i>equiv.</i>	Industr.	Industr-ial, -y	Repb.	Republic
Anorg.	Anorganisch	Inform.	Information	Rept.	Report(s)
Appl.	Applied	Inst.	Institute, institution, & <i>equiv.</i>	Res.	Research
Arch.	Archives	Instr.	Instruments	Reserv.	Reserves
Asoc., Assoc.	Association, & <i>equiv.</i>	Int.	Interior	Resrcs.	Resources
Astron.	Astronomical	Intern.	International	Rdsch.	Rundschau
		Invest.	Investigations	Rev.	Review
Bd.	Band	Issl.	Issledovaniye = investigation	Roy.	Royal, & <i>equiv.</i>
Beitr.	Beiträge	Ist.	Istituto		
Ber.	Bericht-e	Izd.	Izdanie = publication	Sborn.	Sbornik = magazine
Berg.	Bergwesen	Izvest.	Izvestiya	Sch.	School, Schule
Bol., Boll., Bull.	Bulletin, & <i>equiv.</i>			Sci.	Science
Bur.	Bureau	Jahresb.	Jahresbericht	Sect.	Section
		Jahrb.	Jahrbuch	Sedim.	Sedimentary
Ceram.	Ceramic, & <i>equiv.</i>	J.	Journal, & <i>equiv.</i>	Ser., sér.	Series, & <i>equiv.</i>
Chem., Chim.	Chemi-cal, -stry, & <i>equiv.</i>			Serv.	Service
Cien.	Ciencia, -s	Khim.	Khim-ie, &c.	Sitzb.	Sitzungsbericht
Circ.	Circular	Kl.	Klasse	Skr.	Skript, -en, -er
Cl.	Classe	Krist.	Kristallographie, &c.	Soc.	Society, & <i>equiv.</i>
Com.	Comisión			Sondbd.	Sonderband
Comm.	Commission	Lab.	Laboratory	Spec., spez.	Special, & <i>equiv.</i>
Conf.	Conference, & <i>equiv.</i>	Lit.	Literary	Stand.	Standard(s)
Congr.	Congress, & <i>equiv.</i>	Mag.	Magazine	Stn.	Station
Contr.	Contributions	Mat., Math.	Mathematical, & <i>equiv.</i>	Suppl.	Supplement
C.R.	Comptes Rendus	Medd.	Meddelelser	Surv.	Survey, -or
Crist., Cryst.	Crystallograph-ical, -y & <i>equiv.</i>	Mem. Mém.	Memoir, -s, & <i>equiv.</i>	Symp.	Symposium
		Metall.	Metallurg-ical, -y		
Dept.	Department, & <i>equiv.</i>	Min.	Mineralog-ical, -ist, -y	Tab(s).	Table(s), tabellen
Diss.	Dissertation	Misc.	Miscellaneous	Techn.	Technolog-ical, -y
Divn.	Division	Mitt.	Mitteilungen	Tid(s)kr.	Tid(s)krift, -en
Dokl.	Doklady = C.R.	Mh.	Monatsheft	Tijdschr.	Tijdschrift
		Mus., Muz.	Museum, & <i>equiv.</i>	Trab.	Trabajos
				Trans.	Transactions
Econ.	Economic			Transl.	Translat-ed, -ion
Educ.	Education	Nac. Nat., Naz.	National, & <i>equiv.</i>		
Eng.	Engineering	Natur.	Natur-al, -alist, & <i>equiv.</i>	U.A.R.	United Arab Republic
Exped.	Expedition	Natur-w, -v.	Naturwissenschaft, & <i>equiv.</i>	Uch.	Uchenyye = learned
Exper.	Experimental			Ucheb.	Uchebnyi = teaching
Expl.	Exploration			Unders.	Undersögelse, undersökning
				Univ.	University, & <i>equiv.</i>
		Obraz.	Obrazovanie = education		
Fac.	Faculty	Obshch.	Obshchestva = society	Verhdl.	Verhandlungen
Fig(s).	Figure(s)			Vidensk.	Videnshaps
Fis.	Fiscale, fisico	Petr.	Petrolog-ical, -y, & <i>equiv.</i>	Volc., Vulk.	Volcanolog-ical, -y, &c.
Fören.	Föreningen	Petrol.	Petroleum	Vses.	Vsesoyuzni = All-Union
Förh.	Förhandling	Phil.	Philosophical, &c.	Vyshsh.	Vyshshikh = higher
Fortsch.	Fortschritt, -e	Photos.	Photographs		
		Photomicros.	Photomicrographs	Wiss.	Wissenschaft
Gen.	General	Phys.	Physic-al, -s, & <i>equiv.</i>		
Geol. géol.	Geolog-y, -ical, -ist, & <i>equiv.</i>	Pl(s).	Plate(s)	Zap.	Zapiski = memoirs
Gesell.	Gesellschaft	Polytech.	Polytechnic, & <i>equiv.</i>	Zav.	Zavodskaya = factory
Geochem., chim.	Geochemi-cal, -stry, &c.	Pract., Prakt.	Practical, & <i>equiv.</i>	Zaved.	Zavedenii = institution
Geogr.	Geograph-y, -ical, &c.	Proc.	Proceedings	Zhurn.	Zhurnal = journal
		Prof.	Professional	Z.	Zeitschrift. Zeitung, &c.

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